

Environmental Profile

This LCA is calculated according to: ISO 14044, ISO 14040 and EN 15804

Ecochain v3.5.80



Product: 3072510 - KG Branch 45° DN250xDN100 FIN
 Unit: 1 piece
 Manufacturer: Wavin - PL -Buk - Extra products

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 08-06-2023
 End of validity: 08-06-2028
 Verifier: Martijn van Hövell - SGS Search



This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin - PL -Buk - Extra products (2020). (☑ = module declared, MND = module not declared).

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
☑	☑	☑	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	☑	☑	☑

Product stage

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

D Reuse- Recovery- Recycling- potential

Environmental impacts and parameters

GWP-total = EF EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 Climate Change - Land use and LU change [kg CO2 eq]; **ODP** = EF Ozone depletion [kg CFC11 eq]; **AP** = EF Acidification [mol H+ eq]; **EP-fw** = EF Eutrophication, freshwater [kg P eq]; **EP-m** = EF Eutrophication, marine [kg N eq]; **EP-T** = EF Eutrophication, terrestrial [mol N eq]; **POCP** = EF Photochemical ozone formation [kg NMVOC eq]; **ADP-mm** = EF Resource use, minerals and metals [kg Sb eq]; **ADP-f** = EF Resource use, fossils [MJ]; **WDP** = EF Water use [m3 depriv.]; **PM** = EF Particulate matter [disease inc.]; **IR** = EF Ionising radiation [kBq U-235 eq]; **ETP-fw** = EF Ecotoxicity, freshwater [CTUe]; **HTP-c** = EF Human toxicity, cancer [CTUh]; **HTP-nc** = EF Human toxicity, non-cancer [CTUh]; **SQP** = EF Land use [Pt]; **PERE** = Use of renewable primary energy excluding renewable primary energy resources used as raw materials [MJ]; **PERM** = Use of renewable primary energy resources used as raw materials [MJ]; **PERT** = Total use of renewable primary energy resources [MJ]; **PENRE** = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials [MJ]; **PENRM** = Use of non-renewable primary energy resources used as raw materials [MJ]; **PENRT** = Total use of non-renewable primary energy resources [MJ]; **PET** = Total energy [MJ]; **SM** = Use of secondary material [kg]; **RSF** = Use of renewable secondary fuels [MJ]; **NRSF** = Use of non-renewable secondary fuels [MJ]; **FW** = Use of net fresh water [m3]; **HWD** = Hazardous waste disposed [kg]; **NHWD** = Non-hazardous waste disposed [kg]; **RWD** = Radioactive waste disposed [kg]; **CRU** = Components for re-use [kg]; **MFR** = Materials for recycling [kg]; **MER** = Materials for energy recovery [kg]; **EE** = Exported energy [MJ]; **EET** = Exported energy thermic [MJ]; **EEE** = Exported energy electric [MJ]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	5.74E+0	9.58E-2	1.45E-4	5.84E+0	8.48E-2	4.93E+0	2.64E-2	-3.69E+0	7.18E+0
GWP-f	kg CO2 eq	7.75E+0	9.57E-2	1.46E-4	7.85E+0	8.48E-2	2.54E+0	2.64E-2	-4.32E+0	6.19E+0
GWP-b	kg CO2 eq	-2.02E+0	5.81E-5	-1.54E-6	-2.02E+0	5.15E-5	2.38E+0	3.43E-5	6.31E-1	9.95E-1
GWP-luluc	kg CO2 eq	9.95E-3	3.39E-5	1.49E-7	9.98E-3	3.00E-5	1.11E-3	6.66E-7	-7.91E-3	3.21E-3
ODP	kg CFC11 eq	3.91E-6	2.21E-8	8.26E-12	3.94E-6	1.95E-8	3.15E-7	1.00E-9	-1.91E-6	2.36E-6
AP	mol H+ eq	3.52E-2	5.45E-4	1.47E-6	3.57E-2	4.83E-4	5.41E-3	2.42E-5	-1.87E-2	2.29E-2
EP-fw	kg P eq	3.48E-4	7.88E-7	8.24E-9	3.49E-4	6.97E-7	3.75E-5	3.07E-8	-2.04E-4	1.83E-4
EP-m	kg N eq	6.72E-3	1.95E-4	1.55E-7	6.92E-3	1.73E-4	1.35E-3	1.54E-5	-3.60E-3	4.85E-3
EP-T	mol N eq	7.10E-2	2.15E-3	1.85E-6	7.32E-2	1.90E-3	1.49E-2	9.69E-5	-3.96E-2	5.05E-2
POCP	kg NMVOC eq	2.35E-2	6.15E-4	6.28E-7	2.42E-2	5.44E-4	4.44E-3	3.32E-5	-1.30E-2	1.62E-2
ADP-mm	kg Sb eq	1.99E-4	2.48E-6	1.97E-8	2.01E-4	2.19E-6	2.13E-5	2.39E-8	-8.33E-5	1.42E-4
ADP-f	MJ	1.88E+2	1.47E+0	1.36E-3	1.90E+2	1.30E+0	1.43E+1	7.30E-2	-9.99E+1	1.05E+2
WDP	m3 depriv.	1.16E+1	4.51E-3	5.22E-5	1.16E+1	3.99E-3	5.61E-1	3.34E-4	-6.25E+0	5.89E+0
PM	disease inc.	2.91E-7	8.64E-9	9.08E-12	3.00E-7	7.65E-9	6.67E-8	5.02E-10	-1.86E-7	1.88E-7
IR	kBq U-235 eq	4.10E-1	6.42E-3	1.02E-6	4.16E-1	5.69E-3	5.14E-2	3.38E-4	-2.23E-1	2.51E-1
ETP-fw	CTUe	2.00E+2	1.19E+0	1.21E-2	2.01E+2	1.06E+0	1.11E+2	1.22E+0	-1.08E+2	2.07E+2
HTP-c	CTUh	5.49E-9	4.25E-11	6.17E-13	5.53E-9	3.76E-11	1.54E-9	1.92E-12	-3.05E-9	4.06E-9
HTP-nc	CTUh	1.61E-7	1.42E-9	1.57E-11	1.62E-7	1.26E-9	3.84E-8	2.32E-10	-8.57E-8	1.16E-7
SQP	Pt	2.23E+2	1.26E+0	2.24E-3	2.25E+2	1.11E+0	8.67E+0	1.88E-1	-2.74E+2	-3.96E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.92E+1	2.11E-2	2.40E-2	3.92E+1	1.87E-2	1.03E+0	2.80E-3	-4.72E+1	-6.93E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.92E+1	2.11E-2	2.40E-2	3.92E+1	1.87E-2	1.03E+0	2.80E-3	-4.72E+1	-6.93E+0
PENRE	MJ	2.02E+2	1.56E+0	1.44E-3	2.03E+2	1.38E+0	1.52E+1	7.75E-2	-1.08E+2	1.13E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.02E+2	1.56E+0	1.44E-3	2.03E+2	1.38E+0	1.52E+1	7.75E-2	-1.08E+2	1.13E+2
PET	MJ	2.41E+2	1.58E+0	2.55E-2	2.43E+2	1.40E+0	1.63E+1	8.03E-2	-1.55E+2	1.06E+2
SM	kg	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0
FW	m3	1.30E-1	1.66E-4	1.46E-6	1.30E-1	1.47E-4	1.55E-2	9.01E-5	-8.15E-2	6.40E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.66E-4	3.76E-6	2.73E-13	1.69E-4	3.33E-6	2.38E-5	8.77E-8	-9.41E-5	1.02E-4
NHWD	kg	8.65E-1	9.11E-2	1.05E-6	9.56E-1	8.06E-2	5.22E-1	3.22E-1	-4.12E-1	1.47E+0
RWD	kg	3.72E-4	9.99E-6	1.10E-13	3.82E-4	8.85E-6	5.56E-5	4.77E-7	-2.03E-4	2.43E-4
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EE	MJ	0	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	0



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